



FACT SHEET

August 2008 - Neodesha Refinery Site - Neodesha, Kansas

Background Information

The Neodesha Refinery Site is located immediately west of the City of Neodesha in southeastern Kansas. Past releases of petroleum hydrocarbons from the refinery have resulted in soil and groundwater contamination at the facility. Contaminated ground water has migrated from the former refinery property beneath residential and industrial properties in the City of Neodesha.

The City of Neodesha's water supply comes from an intake on the Fall River as shown on the figure (right). To date, Neodesha's drinking water supply has not been impacted by former refinery operations. The Kansas Department of Health and Environment (KDHE) Bureau of Water mandates frequent testing of public water supplies. The most recent samples were collected in March/May 2008; refinery-related contaminants were not detected.

Site History

Refining operations began at the Neodesha Refinery in 1897 and continued until 1970 when the refinery was demolished and the refinery property was donated to the City of Neodesha. Contamination was first identified at the site in 1980, during a KDHE inspection of a sludge disposal pond north of Granby Road. During the 1980s, numerous investigations were conducted by Amoco (now BP) and KDHE across the site; contamination at the North Site and South Site was capped. In 1990, KDHE and Amoco entered into a Consent Agreement to conduct a remedial investigation, feasibility study, and to prepare and implement a remedial action plan, among other activities. The remedial investigation took place in several phases from 1990 until 2000. Based upon the data collected during the investigations, a human health risk assessment and a screening-level ecological risk assessment were conducted. Following KDHE's approval of the risk assessments in 2003, a Corrective Action Study was prepared which proposed several alternatives for addressing contamination in Neodesha. A Corrective Action Study was approved by KDHE in 2005 and is being revisited.



Location of the Neodesha Refinery Site

Recent Activities At the Site

In 2006 and 2007, additional sampling characterized data gaps and identified contamination in areas not previously assessed. KDHE, in consultation with the City of Neodesha and BP, has determined that additional sampling is needed to develop a comprehensive final site remedy. KDHE has further determined that development of a revised Corrective Action Study, which evaluates other potentially viable remedial options for the site, is warranted.

In February 2008, at the request of USD #461, KDHE conducted indoor air sampling at Heller Elementary School, North Lawn Elementary School and the Junior/Senior High School in Neodesha. The data collected indicate that contamination associated with historical refinery operations is not currently impacting indoor air quality in the schools; however, other non-refinery related contaminants (specifically chlorinated solvents and refrigerants) were detected in the samples and are being further evaluated at this time.



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Interim Measures at the Site

An interim measure is a set of short-term actions or activities taken to quickly prevent, mitigate or remedy unacceptable risk(s) posed to human health and the environment. Over time, several interim measures have been implemented at the Neodesha Refinery Site. These include: the excavation of areas where petroleum hydrocarbons were expressed at the surface (i.e., near the ball fields); a trench at the former tank site originally used to inject air into the aquifer and currently used to recover petroleum product; several dual phase extraction wells which remove contaminated groundwater, petroleum, and vapors; and two systems which introduce sulfate to the aquifer to encourage natural breakdown of petroleum hydrocarbons in groundwater. These systems are shown on the attached figure.

BP estimates that 163,942,000 gallons of contaminated groundwater have been extracted and treated by the existing remedial systems. In addition, 78,237 gallons of petroleum product have been recovered. These values do not include groundwater and soil that have been treated in place.

Recently, BP has approached KDHE with proposals for installation of additional interim measures to help expedite the cleanup process. KDHE expects to receive more formal proposals for lead-impacted soil excavation and vacuum-enhanced oil recovery in the near future. Such proposals are subject to KDHE review and approval prior to implementation.

All of the interim measures implemented to date may become a part of the final site remedy as described in the eventual Corrective Action Decision. This, however, does not mean that additional remedial actions will not be conducted. Following completion of the upcoming investigation, additional pilot testing will be conducted and evaluated in a revised Corrective Action Study to ensure appropriate selection of the final comprehensive site remedy.

What Happens Next?

The next activities at the Neodesha Refinery Site will focus on community involvement and the elimination of data gaps prior to determining the final comprehensive remedy at the site. KDHE is preparing a community involvement plan based on the results of interviews with members of the community. This plan will help ensure that the community is satisfied with future decisions made by KDHE for the cleanup of the Site. To fill data gaps, KDHE has requested that BP conduct additional soil, groundwater, sediment, and surface water sampling at and near the former refinery. The results of this sampling will be used to prepare a revised Corrective Action Study and will ultimately serve as the basis for KDHE's Corrective Action Decision for the Site.

We Want Your Input...

KDHE's community involvement plan will likely recommend additional public meetings, information sessions or workshops, distribution of fact sheets, and establishment of an official repository in Neodesha. Based on community interest, KDHE may also establish a Citizen's Advisory Group to allow for KDHE to better contemplate local concerns and obtain the public's input on future remedial actions at the site. This group would be led by the KDHE and will meet during KDHE's review of the revised Corrective Action Study. For more information on how you could be involved, please contact Chris Carey at 785-296-0225.

Contact Us

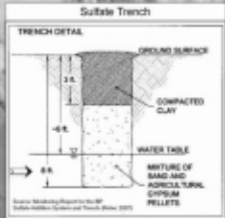
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Remedial Systems at the Neodesha Refinery Site



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